

WHAT IS CLAIMED IS:

1. A forehead pad comprising:
 - a) a base portion, wherein the base portion defines
 - (i) a first surface, and
 - (ii) a second surface to contact a user's forehead, wherein the second surface is concave;
 - b) a support post, wherein the support post projects from the first surface and comprises a necked down region; and
 - c) a head adapted to connect the support post to a forehead support of a respiratory mask.

2. A forehead pad according to claim 1, wherein the support post projects from the base portion and is integrally molded therewith.

3. A forehead pad according to claim 1, wherein the support post projects from the first surface of the base portion at an angle,
wherein the angle is defined between a tangent to the first surface at a point of contact between the support post and the base portion,
and wherein the angle is between about 60° and about 120°.

4. A forehead pad according to claim 3, wherein the angle is less than about 90°.

5. A forehead pad according to claim 4, wherein the angle is between about 65° and about 80°.

6. A forehead pad according to claim 1, wherein the second surface defines a raised surface pattern to at least one of: aid in airflow, prevent sweating, and increase comfort to the user.

7. A forehead pad according to claim 1, wherein the base portion and support post include a hollowed out region extending a pre-determined distance into at least one of the base portion and support post.

8. A forehead pad according to claim 1, wherein the support post includes a tapered portion such that a region at the base portion is thicker than the head.

9. A forehead pad according to claim 1, wherein the head includes a tapered portion from the support post to a point.

10. A forehead pad according to claim 1, wherein the diameter of the necked down region is less than the diameter of a base of the head.

11. A forehead pad according to claim 1, wherein the support post is axially compressible.

12. A forehead pad according to claim 11, wherein the support post includes at least one cut away portion.

13. A forehead pad according to claim 12, wherein the at least one cut away portion has a length of between about 0.05 mm to about 1.5 mm.

14. A forehead pad according to claim 13, wherein the at least one cut away portion has a length of between about 0.25 mm and about 1 mm.

15. A forehead pad according to claim 12, wherein the at least one cut away portion has a width of between about 0.25 mm to about 1.25 mm.

16. A forehead pad according to claim 15, wherein the at least one cut away portion has a width of between about 0.5 mm and about 1 mm.

17. A forehead pad according to claim 16, wherein the at least one cut away portion has a width of between about 0.75 mm.

18. A forehead pad according to claim 12, wherein the support post further includes at least one undercut.

19. A forehead pad according to claim 18, wherein the at least one undercut has a depth of between about 0.25 mm to about 1.25 mm.

20. A forehead pad according to claim 15, wherein the at least one undercut has a depth of between about 0.5 mm and about 1 mm.

21. A forehead pad according to claim 16, wherein the at least one undercut has a depth of between about 0.75 mm.

22. A forehead pad according to claim 1, wherein the support post has a diameter of between about 0.1 cm to about 1.5 cm.

23. A forehead pad according to claim 22, wherein the support post has a diameter of between about 0.5 cm to about 1.25 cm.

24. A forehead pad according to claim 23, wherein the support post has a diameter of approximately 1 cm.

25. A forehead pad according to claim 1, wherein the support post has a length of between about 0.1 cm to about 1.5 cm.

26. A forehead pad according to claim 25, wherein the support post has a length of between about 0.5 cm to about 1.25 cm.

27. A forehead pad according to claim 26, wherein the support post has a length of approximately 1 cm.

28. A forehead pad according to claim 1, wherein the head is adapted to be releasably connected to the forehead support using a push-on motion.

29. A forehead pad according to claim 1, wherein the support post is sufficiently rigid to distribute the lines of force from the forehead support evenly across the second surface of the forehead pad.

30. A forehead pad according to claim 1, wherein the support post and the base portion are configured to evenly distribute forces across the second surface without localized pressure points.

31. A forehead pad according to claim 1, wherein the forehead pad consists of the base portion, the support post, and the head.

32. A forehead pad according to claim 1, wherein the second surface consists essentially of the support post, which is substantially centrally mounted on the second surface.

33. A forehead pad consisting essentially of:
 - a) a base portion to contact a user's forehead; and
 - b) a support post connected to a central portion of the base portion.

34. A forehead pad according to claim 33, wherein the support post is substantially centrally mounted on the base portion.

35. A forehead pad comprising:
 - a) a base portion to contact a user's forehead;
 - b) a support post connected to the base portion; and
 - c) a head adapted to connect the support post to a forehead support of a respiratory mask,

wherein the support post distributes lines of force from the head through the support post to the base portion such that the lines of force are substantially evenly distributed across the base portion.

36. A respiratory mask comprising:
 - a) a forehead support having an aperture and an otherwise entirely smooth surface facing a user in use of the mask; and
 - b) a forehead pad comprising a base portion, wherein the base portion defines a first surface and a second surface opposite the first surface to contact a user's forehead; a support post, wherein the support post projects from the first surface; and a head adapted to connect the support post to the forehead support.

37. A forehead pad assembly comprising at least two forehead pads, each pad comprising:

- a) a base portion to contact a user's forehead;
- b) a support post connected to the base portion, wherein the support post comprises a necked down region; and
- c) a head adapted to connect the support post to a forehead support of a respiratory mask;

wherein the assembly further comprises at least one connector to connect adjacent base portions.

38. A forehead pad according to claim 37, wherein each base portion is adapted to be disposed above an eyebrow of the user.

39. A forehead pad according to claim 37, wherein the connector is flexible.

40. A forehead pad according to claim 37, wherein at least two base portion and at least one connector are integrally formed with each other.

41. A forehead pad according to claim 37, wherein at least one base portion and at least one connector are formed as one piece.

42. A forehead pad according to claim 37, wherein the base portion defines a first surface, from which the support post projects.

43. A forehead pad according to claim 42, wherein the support post projects from the first surface of the base portion at an angle,

wherein the angle is defined between a tangent to the first surface at a point of contact between the support post and the base portion,

and wherein the angle is between about 60° and about 120°.

44. A forehead pad according to claim 43, wherein the angle is less than about 90°.

45. A forehead pad according to claim 44, wherein the angle is between about 65° and about 80°.

46. A forehead pad according to claim 42, wherein each base portion defines a second surface that is adapted to contact the user's forehead, and wherein the second surface is concave.

47. A forehead pad according to claim 46, wherein the second surface defines a raised surface pattern to at least one of: aid in airflow, prevent sweating, and increase comfort to the user.

48. A forehead pad according to claim 37, wherein each base portion and support post include a hollowed out region extending a pre-determined distance into at least one of the base portion and support post.

49. A forehead pad according to claim 37, wherein the support post includes a tapered portion such that a region at the base portion is thicker than the head.

50. A forehead pad according to claim 37, wherein the head includes a tapered portion from the support post to a point.

51. A forehead pad according to claim 37, wherein the diameter of the necked down region is less than the diameter of a base of the head.

52. A forehead pad according to claim 37, wherein the support post is axially compressible.

53. A forehead pad according to claim 52, wherein the support post includes cut away portions.

54. A respiratory mask comprising:

a) a forehead support; and

b) a forehead pad comprising:

(i) a base portion, wherein the base portion further defines:

a first surface, and

a second surface to contact a user's forehead, wherein the second surface is concave;

(ii) a support post, wherein the support post projects from the first surface and comprises a necked down region; and

(iii) a head adapted to connect the support post to a forehead support.

55. A respiratory mask according to claim 54, wherein the forehead support is essentially straight.

56. A respiratory mask according to claim 54, wherein the forehead support is curved.

57. A respiratory mask according to claim 54, wherein the forehead pad connected to the forehead support does not project a hard surface to the user's forehead.

58. A respiratory mask according to claim 54, wherein the forehead pad is secured to the forehead support by only the support post.

59. A respiratory mask according to claim 54, wherein the support post is axially compressible.

60. A respiratory mask according to claim 59, wherein the support post includes cut away portions.

61. A respiratory mask according to claim 54, wherein the forehead support includes at least one aperture.

62. A respiratory mask according to claim 61, wherein the forehead support comprises compressible regions in proximity with the aperture.

63. A respiratory mask according to claim 61, wherein the head includes a tapered portion from the support post to a point in order to releasably insert the head in the aperture.

64. A respiratory mask according to claim 61, wherein the diameter of the necked down region is less than the diameter of a base of the head, such that the head can be releasably inserted into the aperture in order to securely attach the forehead pad to the forehead support.

65. A respiratory mask comprising:

a) a forehead support; and

b) a forehead pad comprising:

(i) a base portion, wherein the base portion further defines:

a first surface, and

a second surface to contact a user's forehead;

(ii) a support post, wherein the support post projects from the first surface and is adapted to connect to the forehead support,

wherein the base portion is connected to the forehead support solely through the support post.

66. A respiratory mask according to claim 65, wherein a surface of the forehead support that faces the forehead pad includes no protrusions.

67. A forehead pad comprising:

- a) a base portion, wherein the base portion further defines:
 - (i) a first surface, and
 - (ii) a second surface to contact a user's forehead;
- b) a support post, wherein the support post projects from the first surface and is adapted to connect to the forehead support,
wherein the second surface substantially evenly distributes force across the forehead pad without localized pressure points.